

Remarks:

Your applicant has amended claims 1, 3, 24, 25, and 27 and believes claims 1 through 32 to now be in condition for allowance for the following reasons.

The examiner cites Driscoll (4,517,085) and Koster (4,295,965) under 35 USC 102, as prior art barring allowance. It is respectfully submitted that neither reference anticipates applicants' invention. In particular neither Driscoll nor Koster disclose a device that can be expanded modularly in the manner disclosed and claimed by your applicant.

As the examiner does note, Driscoll discloses multiple filter elements that can be connected by a rigid tubular member (22). However, Driscoll does not disclose a device that can be expanded in the manner invented by applicant. Driscoll's filter elements (18) are located within a pressure vessel (12). The number of filter elements that can be connected in series is limited by the size of the pressure vessel. Driscoll does not disclose increasing or decreasing the size of the pressure vessel using modular units. The utility of applicants' invention includes the ability to vary the size of a filtration system to fit the needs of various Aquaculture facilities, as well as changing needs at a particular facility, simply by adding or removing modular units. Driscoll does not teach this at all, and in fact teaches away from it. Driscoll simply discloses a device for joining filter elements within a defined space. That space, the pressure vessel, cannot be easily altered as needed for various facilities or for changing needs at a particular facility. Applicants have amended the claims to clarify that the housing of each modular filtration unit is what is connected, to create a larger filtration volume. This is clearly outside the scope of Driscoll.

Furthermore, Driscoll's "plug" (66), is made of "solid hard material" (Col. 4, line 47), and does not facilitate connection of the housings of multiple filtration units. The joints between

applicants' modular filtration units are sealed by connecting the housings of those units together, and sealing the joints with gaskets or other flexible materials. Driscoll doesn't have an expandable "housing" and has no joint between housings to seal.

Koster concerns an underwater filter system, and discloses the use of multiple "cassettes" through which water passes to a central "clear-water chamber." (84). Koster is not concerned with, and does not disclose a filtration system that can be used outside of an underwater environment. Indeed, the walls of Koster's "cassettes" have numerous apertures through which the water passes in order to be filtered. Conversely, applicants' device must have a water tight housing, such that it can be used in environments that are not underwater. The connection of Koster's cassettes does not involve any gaskets or other means to seal them together, since water leaks in Koster are not a great concern. The examiner asserts that Koster discloses a gasket or sealant at Column 4, lines 39-40 (see the office action, page 5). It is respectfully submitted that Koster does not mention the use of any gaskets or sealants to connect the cassettes together, and certainly does not address the need to create a water tight connection.

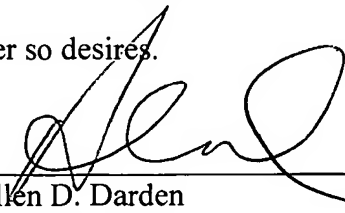
Koster also does not disclose the use of modular filtration units in series. Instead, Koster's cassettes are used in parallel. Even if multiple cassettes are present, the water being filtered by the Koster device only goes through one of the cassettes, then into the clear water chamber (84). Applicants' device can be used to pretreat water to be used in an aquaculture environment, and can be used to treat effluent from an aquaculture environment. Important to these applications is the ability to treat all of the water with *each* of the modular filtration units, since each unit may contain a different type of filtration device. Koster cannot meet these needs, since each of Koster's cassettes only treats a portion of the water being filtered.

The examiner also cites Koster with each of Lee (5,961,831), Munsch (5,667,671), and Willinger (4,714,547) in rejecting claims under 35 USC 103(a). However, it is respectfully submitted that the combination of Koster with each of these references is problematic if not impossible. For example, foam fractionation cannot be performed in an underwater environment. No "cassette" as disclosed in Koster can perform as a foam fractionator underwater. Other types of filtration treatment (UV sterilizer; oxygenator and others) cannot be performed by simply connecting another underwater cassette with multiple apertures. Even if such cassettes could be produced and made to function underwater, no pretreatment or effluent application would be reliable where *all* of the water is not treated by *each* type of filtration device. Furthermore, even in a recycle application, a system with cassettes working in parallel cannot insure that the water being treated will be exposed to each of the types of filtration units. How much water passes through each "cassette" would be dependent upon the pressure drop of each cassette ... a factor that would change as the filtration cassette becomes clogged. Applicants' device provides for a series of connected modular filtration units, each of which treats the entire water flow.

Conclusion:

Your applicant has amended the claims in a manner that places the claims 1 – 32 in condition for allowance, and respectfully requests entry of the above amendments. Applicant's counsel would welcome a telephone conference if the examiner so desires.

Reg. No. 32,214
Tel. No.: (225) 346-0285


Allen D. Darden
P.O. Box 4412
Baton Rouge, LA 70821-4412


Certificate of Mailing Under 37 CFR 1.10

Date: April 3, 2006

Express Mail No.: ET 938 40873025

I hereby certify that this Response to Office Action is being deposited under 37 CFR 1.10 with United States Postal Service with sufficient postage as United States Postal Service Express Mail, post office addressee, on the date indicated above in an envelope addressed to:

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450


Allen Darden